

Westbrook School Department)	Departmental
Cumberland County)	Findings of Fact and Order
Westbrook, Maine)	Air Emission License
A-114-71-E-A)	Amendment #1
)	After-the-Fact

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Westbrook High School of Westbrook, Maine was issued Air Emission License A-114-71-D-R on October 11, 2000 permitting the operation of emission sources associated with their educational facility.

The high school resides on a campus with several other structures, including the Canal School, Westbrook Regional Vocational Center, and Superintendent's Office buildings. The Department has determined that emission sources in these buildings are subject to licensure and must be included on the previously existing Westbrook High School license. Since it will now include emission sources from several schools, the Westbrook High School license will now be under the name Westbrook School Department.

Westbrook High School has requested an amendment to their license in order to:

- License emission sources from the Canal School, Vocational Center, and Superintendent's Office, and
- Change the facility name on the license from Westbrook High School to Westbrook School Department.

B. Emission Equipment

The following equipment will be added to the license:

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Fuel Burning Equipment

Equipment	Maximum Capacity	Maximum Firing Rate	Fuel Type, % Sulfur	Equipment Location	Install Date
Boiler CS1	2.5 MMBtu/hr	2426 scf/hr	Natural gas	Canal School	2000
Boiler CS2	2.5 MMBtu/hr	2426 scf/hr	Natural gas	Canal School	1999
Generator CS1	0.7 MMBtu/hr	5.4 gal/hr	Diesel, 0.05%	Canal School	2000
Boiler VS1	8.5 MMBtu/hr	61 gal/hr	#2, 0.35%	Vocational School	1999
Generator VS1	1.6 MMBtu/hr	11.9 gal/hr	Diesel, 0.05%	Vocational School	1999
Boiler SO1	1.3 MMBtu/hr	9.1 gal/hr	#2, 0.35%	Superintendent's Office	1984

Westbrook School Department also operates parts washers in their various school buildings.

C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as given in Maine's Air Regulations. This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas. BPT for an after-the-fact amendment requires an analysis similar to a Best Available Control Technology analysis per Chapter 115 of the Department's regulations.

A. Boilers

Westbrook School Department has applied to add four boilers to their current license. The boilers consist of two natural gas fired boilers, Boilers CS1 and CS2, each rated at 2.5 MMBtu/hr, and two #2 fired boilers, Boilers VS1 and SO1, with maximum heat inputs of 8.5 and 1.3 MMBtu/hr respectively. The boilers are not subject to EPA New Source Performance Standards (NSPS) Subpart Dc for

boilers with heat inputs of 10 MMBtu/hr or greater and manufactured after June 9, 1989.

BPT for the boilers is the following:

1. The firing of 0.35% sulfur #2 fuel oil in Boilers VS1 and SO1.
2. PM emission limits for Boilers CS1, CS2 and SO1 are based on AP-42 data for natural gas combustion dated 7/98 and for fuel oil combustion dated 9/98. PM emission limits for Boiler VS1 are regulated by MEDEP Chapter 103 for boilers greater than 3 MMBtu/hr. PM₁₀ limits for all the boilers are derived from the PM calculations.
3. NO_x emission limits are based on data for boilers of similar size and age and firing fuel oil or natural gas.
4. SO₂ emission limits for Boilers CS1 and CS2 are based on AP-42 data for natural gas combustion dated 7/98.
5. CO and VOC emission limits are based upon AP-42 data for natural gas combustion dated 7/98 and for fuel oil combustion dated 9/98.
6. Visible emissions from the stack of Boilers CS1 and CS2 shall not exceed 10% opacity on a 6-minute block average.
7. Visible emissions from the stacks of each of Boilers VS1 and SO1 shall not exceed 20% opacity on a 6-minute block average.

B. Generators

Westbrook School Department has requested to add two emergency diesel generators to their original license. Generator CS1 is located in the Canal School and has a maximum heat input of 0.74 MMBtu/hr. Generator VS1 is located in the Vocational School with a maximum heat input of 1.64 MMBtu/hr. As the generators are to be for emergency purposes only, they are limited to 500 hours of operation per 12-month rolling year.

BPT for the generators is the following:

1. The use of 0.05% sulfur diesel fuel.
2. Operation limited to 500 hours per 12-month rolling year.
3. PM, NO_x, CO and VOC emission limits based on AP-42 data for diesel fired generators less than 600 horsepower dated 10/96. PM₁₀ emission limits are derived from the PM limits.
4. Visible emissions from each of Generators CS1 and VS1 shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in a 3-hour period.

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C. Parts Washers

Westbrook School Department maintains parts washers. The parts washers are subject to the requirements of MEDEP Chapter 130. Westbrook School Department shall maintain records of the amount of solvent added and comply with the equipment and operating standards of Chapter 130.

D. Annual Emissions Restrictions

The total allowable annual emissions for Westbrook School Department are calculated based on 500 hours of operation per 12-month rolling year for each emergency generator, and continuous operation of the boilers, including continuous operation of Boiler #1 and Boiler #2, previously licensed in A-114-71-D-R.

Total Allowable Annual Emission for the Facility
(used to calculate the annual license fee)

<u>Pollutant</u>	<u>Tons/Year</u>
PM	4.09
PM ₁₀	4.09
SO ₂	15.3
NO _x	21.1
CO	4.98
VOC	0.49

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-114-71-E-A, subject to the conditions found in Air Emission License A-114-71-D-R, and in the following conditions:

The following are new conditions:

(18) Boilers CS1, CS2, VS1 and SO1

- (i) Boilers CS1 and CS2 shall fire natural gas. Boilers VS1 and SO1 shall fire 0.35% sulfur #2 fuel oil. Compliance with the sulfur content limit shall be demonstrated by fuel receipts showing the sulfur content of the fuel and maintained for 12 rolling months.
- (ii) Emissions from the boilers shall not exceed the following:

Boiler Emission Limits

	Boiler CS1 lb/hr	Boiler CS2 lb/hr	Boiler VS1 lb/hr	Boiler SO1 lb/hr
PM	0.02	0.02	0.7	0.01
PM₁₀	0.02	0.02	0.7	0.01
SO₂	0.01	0.01	3.0	0.45
NO_x	0.25	0.25	3.0	0.44
CO	0.21	0.21	0.31	0.05
VOC	0.02	0.02	0.01	0.01

Compliance shall be demonstrated on request of the Department through stack testing in accordance with the appropriate method found in 40 CFR Part 60, Appendix A.

- (iii) Boiler VS1 shall not exceed a PM limit of 0.08 lb/MMBtu.
- (iv) Visible emissions from the stack of Boilers CS1 and CS2 shall not exceed 10% opacity on a 6-minute block average.
- (v) Visible emissions from each of Boilers VS1 and SO1 shall not exceed 20% opacity on a 6-minute block average.

(19) Generators CS1 and VS1

- (i) Generators CS1 and VS1 shall each be limited to 500 hours of operation per 12-month rolling year. Compliance shall be demonstrated by hour meters operated and maintained on the generators.
- (ii) Generators CS1 and VS1 shall each fire 0.05% sulfur diesel fuel. Compliance shall be demonstrated through fuel receipts showing the sulfur content of the fuel and maintained for 12 rolling months.
- (iii) A log shall be kept documenting the dates, times and reason of operation each time an emergency generator is operated.
- (iv) Emissions from the generators shall not exceed the following:

Generator Emission Limits

	Generator CS1 (lb/hr)	Generator VS1 (lb/hr)
PM	0.23	0.51
PM₁₀	0.23	0.51
SO₂	0.04	0.085
NO_x	3.3	7.23
CO	0.70	1.56
VOC	0.26	0.58

- (v) Visible emissions from each of Generators CS1 and VS1 shall not exceed 30% opacity on a six-minute block average basis, except for no more than 2 six-minute block averages in a 3-hour period
- (20) **Parts Washers**
The parts washers are subject to the operational and record keeping requirements of MEDEP Chapter 130. Westbrook School Department shall keep records of the amount of solvent added to each parts washer and shall attach a permanent conspicuous label to each unit summarizing the operational standards of Chapter 130:
- (i) Equip each cold cleaning degreaser with a cover that is easily operated with one hand if:
 - (a) the solvent vapor pressure is greater than 15 millimeters of mercury measured at 100°F by ASTM D323-89; or,
 - (b) the solvent is agitated; or,
 - (c) the solvent is heated.
 - (ii) Close the covers on all solvent degreasing tanks when the tanks are not in use;
 - (iii) Drain the cleaned parts for at least fifteen (15) seconds or until dripping stops;
 - (iv) If used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower-type spray) at a pressure that does not exceed ten (10) pounds per square inch gauge pressure (psig);
 - (v) Do not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
 - (vi) Minimize drafts to less than 40 meters/minute;
 - (vii) Refrain from operating the cold cleaning degreaser upon the occurrence of any visible solvent leak until such leak is repaired; and
 - (viii) Westbrook School Department shall not use any halogenated solvents in the degreasing tanks.

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- (21) Westbrook School Department shall pay the annual air emission license fee within 30 days of July 31 of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.
- (22) This amendment shall expire concurrently with Air Emission License A-114-71-D-R.

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
 MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: August 6, 2002

Date of application acceptance: October 4, 2002

Date filed with the Board of Environmental Protection: _____

This Order prepared by Rachel E. Pilling, Bureau of Air Quality